multiple generations, and thus, enables transgenic livestock to be produced using foreign gene transfection and gene targeting.

The Examiner alleges that the claims do not share a special technical feature because the method of claim 1 is disclosed in Pain et al. However, Pain et al. only reported that **avian stem cells** with multiple morphogenetic potentialities were derived and maintained in vitro by long-term culture of **blastodermal cells**.

Embryonic stem (ES) cell lines are undifferentiated and pluripotent cells isolated from blastocyst or morula embryos, and expected to be highly useful, e.g., in the study of developmental biology, analysis of the characteristics of totipotent cells, and gene-targeting to produce genetically modified livestock.

Many articles and patents, including those cited by the Examiner against the present application, deal with ES cell derived from blastocyst or morula embryos. However, the production of pluripotent EG cells derived from PGCs has not previously been reported for any non-mammalian species.

The inventive EG cells derived from PGCs according to the method of the present invention, maintain the characteristics of gonadal PGCs and undifferentiated cells, and successfully develop into embryoid bodies which differentiate into a variety of cell types and maintain for a period of over 4 months by repeated subculture. Further, the inventive EG cells proliferate and differentiate

into various tissues including the gonad during embryo development and thus, they are pluripotent *in vivo*.

Accordingly, none of the prior art references including those cited by the Examiner disclose or even suggest the inventive pluripotent EG cells derived from PGCs.

Further, applicants believe that the method of making avian EG cells as claimed in claims 1-15 and 26 have been hitherto used only in the preparation of avian EG cells as defined in claims 16-19, not for other purposes, e.g., for making ES cell as pointed out by the Examiner because the ES cell is a stem cell isolated from blastocyst or morula embryos. Moreover, the EG cells as defined in claims 16-19 can be produced only by the processes of claims 1-15 and 26.

Accordingly, applicants respectfully submit that the inventions of Groups I and II constitute a single inventive concept and should be examined as one invention.

In addition, the method of making chimeras using avian EG cells as claimed in claims 20-23 (Group III) should also be included as one invention with that of Groups I and II for the following reasons:

37 CFR 1.141 states that (b) Where claims to all three categories, product, process of making, and process of use, are included in a national

application, a three way requirement for restriction can only be made where the process of making is distinct from the product. The subject application is a national application which is governed by this statutory regulation.

If the process of making and the product are not distinct, the process of using may be joined with the claims directed to the product and process of making the product even though a showing of distinctness between the product and process of using the product can be made.

According to the above, when the product claims are allowable (i.e., novel and nonobvious), restriction may be required only where the process of making and the product made are distinct (MPEP § 806.05(f)). Otherwise, the process of using must be joined with process of making and product made, even if a showing of distinctness can be made between the product and process of using (MPEP § 806.05(h)).

Accordingly, applicants respectfully submit that the inventions of Group I (**process of making**: avian EG cells), Group II (**product**: avian EG cells) and Group III (**process of use**: a method of making chimera using avian EG cells) should be examined simultaneously by the Examiner to expedite the prosecution proceedings pursuant to 37 CFR 1.141.

In view of the foregoing, although applicants accept the restriction

requirement as it relates to Groups IV and V, applicants respectfully request that the restriction requirement for Groups I, II and III be withdrawn.

Respectfully submitted,

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MAILING CERTIFICATE

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed: Commissioner for Patents & Trademarks, Washington, D.C. 20231 on **February 4, 2003**.

Audrey de Souza